PROGRESS

OF

MEDICAL SCIENCE.

THERAPEUTICS.

UNDER THE CHARGE OF

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THE TREATMENT OF TYPHOID FEVER.

DR. SICARD, after discussing the inconveniences and dangers in the use of salicylate of bismuth, charcoal, iodoform, naphthalin, and β-naphthol as intestinal antiseptics, in the *Revue de Thérapeutique Médico-chirurgicale* for 1891, No. 17, p. 458, recommends salol in daily doses, from fifteen to forty-five grains. Calomel, given in fractional doses, following the method of Bouchard, although diminishing the mortality, yet gives rise to a long convalescence. He believes chloroform in small doses to be one of the most useful and least dangerous of all. Used by Desprez in 1867 in cholera, and by Stepp in 1888 in gastric ulcer and in typhoid fever, the author administers it in five-drop doses, thrice daily. This dose is dissolved in one thousand parts of water. He further insists that large quantities of fluids shall be prescribed in small doses, frequently repeated, up to six or seven quarts per day; two quarts of milk, one quart of bouillon, in addition to water in which sugar-of-milk is dissolved. The amount of urine passed is frequently five or six quarts daily. This treatment not only favors the elimination of toxic matters, but restores to the organism the water lost through the lungs and skin.

ERGOT FOR HYPODERMATIC USE.

In the *Therapeutische Monatshefte* for 1891, Heft 7, S. 369, DR. BIEDERT gives us a method for using ergotin subcutaneously without danger of producing either indurations or abscesses. He dissolves the extract of ergot in a 2 per cent. watery solution of carbolic acid. In the intervals between the injections the syringe remains filled with a 3 to 5 per cent. solution of carbolic acid, the needles being kept in a similar solution. At the time of the injection the site selected is cleansed with cotton moistened with the carbolic solution, and the point of puncture covered by a second pledget of cotton dipped in the same solution.

EUROPHEN.

In the same number of the *Therapeutische Monatshefte*, S. 373, we find a bacteriological study of europhen by DR. W. SIEBEL. This product is the result of the action of iodine on isobutylorthocresol in the presence of an alkali, and its name, following its chemical composition, is isobutylorthocresoliodide. It is a fine yellow powder, soluble in alcohol, ether, chloroform and oils, but insoluble in water. In view of the widespread use of other derivatives of iodine, as iodoform, iodol, and aristol, this study is timely. On p. 379 DR. EICHHOFF presents the results of a very carefully conducted clinical research, from which he arrives at the following conclusions: It is of value in all cases of venereal disease, gonorrhœa excepted. In two cases of chancroids, simple dusting of the europhen was followed by rapid healing. Constitutional syphilis was favorably influenced by the remedy in all stages, whether applied externally or used by subcutaneous injection. In doses of a quarter of a grain there was no pain, neither general nor local reaction, but large doses (one and a half grains) gave rise to pains in the head and in the abdomen, especially in women. The advantage of the internal administration of this drug lies in the fact that in the organism the decomposition, with the setting free of iodine in the nascent condition, is a slow process. Among dermatological patients cases of parasitic eczema, psoriasis, and favus were not influenced by the application of europhen, but, on the other hand, favorable results followed in crural ulcer, scrofuloderma, exulcerating lupus and burns, the explanation apparently being that the separation of free iodine takes place only in the presence of moisture and not upon a dry surface, like that of the unbroken skin. Iodoform will be of more limited usefulness, because europhen has all of its advantages with none of its disadvantages, while aristol will not be displaced by europhen, but rather be complementary to it. For external use, a 5 or 10 per cent. salve, with 10 per cent. of olive oil in lanolin, or as europhen-traumaticin, one to twenty, is prescribed.

ELECTRIC CATAPHORESIS.

In the *Revue Internationale d'Electro-thèrapie*, 1891, No. 12, p. 397, DR. IMBERT DE LA TOUCHE gives the results of this treatment of gout and rheumatism, using bryonia and iodide of lithia. The immediate results are greater mobility of the joints, lessened local pain; the subsequent results are, tophi and swellings diminish, the patients gain in strength, can more readily bear fatigue, the appetite improves, digestion becomes easy, sleep becomes calm, and the general health markedly improves. Although the author's experience has been limited and of recent date, yet he believes that this treatment protects against relapses, and also against future attacks.

In the same number DR. GAUTIER relates his interesting experiences with electro-chemical punctures in local tubercular manifestations. This method combines the chemical injections of Lannelongue with the electrolytic punctures of Le Fort, and promises to combine the valuable features of each. The author has chosen patients suffering from diseases notoriously rebellious to treatment, and although yet too early to announce the final results, yet he believes that its field is one where a practice of this method will yield brilliant results.

METHYL-BROMIDE.

In the *Asclepiad*, No. 31, vol. viii. p. 239, in commenting upon the dangers from the administration of the methyl- and ethyl-bromides, DR. B. W. RICHARDSON calls attention to the fact that they decompose readily, and free bromine may be liberated during inhalation, causing rapid spasmodic contraction of both the pulmonary and coronary arteries, with death by syncope. The reasons for this warning are—1st, that these compounds are unstable, being influenced by light, temperature, and exposure to the air; 2d, even when the compounds are unchanged they are irritants; and 3d, they are insoluble. They act quickly, and upon the minute pulmonary circulation, but this very speediness of action is of great disadvantage.

THE IODIDES OF ANTIPYRINE.

In the *Bulletin général de Thérapeutique* for 1891, p. 158, M. DUROY gives a most interesting account of his researches concerning two new organic iodides, the iodides of antipyrine. Dating his investigations upon the antiseptic properties of the iodides from 1853 he believes he has now found a combination superior to those previously known. The proto- and biniodides of antipyrine are pleasant to the taste, and yet in solution prevent the putrefaction of meat, which the iodides of potash and soda do not. Doses of six to nine grains *per diem* are borne without any inconvenience. The proto-iodide appears suited to such conditions as tuberculosis, and glandular enlargements, while the more powerful biniodide should be used in typhoid fever, diphtheria, organic diseases of the alimentary canal, and epidemic diseases. These iodides can be administered in wafers, or rubbed up with sugar, or even placed dry upon the tongue.

MORPHINE *vice* CODEINE AND NARCEINE.

In the *Dietetic Gazette*, 1891, No. 9, p. 177, DR. J. B. MATTISON makes an eloquent plea for the use of less morphine, and in place thereof to prescribe codeine and narceine. No one should be more conversant with the terrible conditions brought about by the use of morphine, since his experience has been extensive in his own special field, and probably no one more appreciates the ease with which the habit is acquired than one whose particular work consists in the care of *habitués*. Referring to a paper by Lauder Brunton, in the *British Medical Journal* for June 9, 1888, in which the analgesic properties of codeine are insisted upon, he believes that with pure codeine we can obtain relief from pain in precisely those cases in which morphine seemed our only resource. He believes, also, that it has distinct and decided hypnotic properties. The gastric symptoms, the dulness and headaches, so often complained of from the administration of morphine, do not follow codeine. The dose need not be increased, nor does it give rise to the indescribable craving of morphine. In following Fischer, with whose valuable contributions he is evidently familiar, he states that the dose is three times larger than that of morphine; the sulphate for administration by mouth, the phosphate for hypodermatic use. Narceine is not an anodyne, and it will not succeed as a soporific, if pain be present. In double the dose of morphine it is efficient in producing sleep. The hydrochlorate (of Merck) can be used for subcutaneous administration.

THE TREATMENT OF SYPHILIS.

Hefte 8 u. 9, 1891, of the *Wiener Klinik* contain the valuable work of DR. ELSENBERG on the treatment of syphilis. After discussing the curability of this disease, the question of re-infection, the results of the excision of the primary lesion, he comes to a consideration of the means at our disposal for the successful treatment. For the primary lesion, if phagedenic, the ordinary antiseptics are recommended: corrosive sublimate, carbolic acid, iodoform, derivatives of iodine. He recommends the method of inunction as the best of all for external use of mercury. He insists that a full warm bath which contains a pound of soda, the patient being well rubbed with soap, shall be taken for two or three days before treatment; that the teeth shall be put in order, and any inflammation of the mucous membrane of the mouth shall be treated by washes of 5 *per cent.* solution of salol dissolved in alcohol and well diluted with water. For inunction he advises the ordinary blue ointment popularized by Lebeuf, in doses from one-half to one and a half drachms. The time required for thorough inunction of the minimum quantity is upward of half an hour. This treatment is to be continued until all symptoms have disappeared, or eight or ten more treatments have been made, or there intervenes swelling of the oral mucous membrane. For six or eight weeks succeeding this treatment the iodide of soda or potash is to be employed. Although placing his reliance upon the inunction method, yet the author gives a very complete history of the various mercurials used for internal medication, as well as those used hypodermatically, both the soluble and insoluble salts.

In the administration of the iodides he prefers the iodide of potash, in doses sufficient to accomplish his purpose, even to one hundred and fifty grains *per diem*. The iodide of soda is to be substituted when potash is contra-indicated, because of the condition of the heart. In rare cases iodoform or odol (thirty to forty-five grains *per diem*) may be substituted.

[Although but little that is new is to be found in this monograph, yet the literature has been so thoroughly studied, the opinions of the clinicians discussed with so much fairness, the indications for treatment so clearly given, the methods to be employed so accurately described, that the careful perusal of this work will amply repay one who wishes to keep himself fully informed on the subject.—ED.]

CREASOTE.

In the *Revue de Thérapeutique Médico-chirurgicale* for 1891, No. 18, p. 497, we find described the method of DR. LEGROUX, who believes that creasote is of great value in preventing the broncho-pneumonia which so frequently follows the operation of tracheotomy. He recommends a formula as follows:

Beechwood creasote, pure	ʒss.
Glycerin	℥iij.
Rum	ʒv.

To be administered in doses of from two to four teaspoonfuls, according to the age of the child. The treatment is to be commenced as soon as it is suspected that the diphtheria has extended to the larynx, and it is of advantage to impregnate the broncho-pulmonary mucous membranes before the operation is performed, so that their resistance to infection may be increased. As soon as the operation is completed it is well to place over the external opening of the canula a thin layer of cotton moistened in a mixture of which the following is the formula:

Creasote	♏xv.
Alcohol	ʒijss.
Glycerin	ʒv.

The internal medication, using the creasote mixture, is to be continued. This treatment does not appear to be as successful if the broncho-pneumonia has set in before the operation.

LAVAGE.

In the same number, page 498, we find the method of **Dr. Lienevitch**, who proposes to relieve the vomiting which follows the administration of chloroform, by lavage. He believes that not only the chloroform, but as well the irritation of the peritoneum produced by the antiseptics, is accountable for this symptom. He employs the tube of Faucher and washes out the stomach with warm water in which ½ to 1 per cent. of bicarbonate of soda has been dissolved, until the water returns clear. The abdominal walls are compressed (after an operation of laparotomy has been performed) during the washing. The results are excellent, in that, if necessary, water sufficient for the needs of the patient can be left in the stomach. The general condition improves, because there is freedom from nausea, gaseous accumulations, vertigo, and epigastric distress.

METHYL-BLUE.

In the *Berliner klinische Wochenschrift*, No. 39, 1891, S. 953, **Drs. Paul Guttman** and **P. Ehrlich** give a valuable report of their investigations at the Moabit Hospital in Berlin. Taking the statement of Celli and Guarnieri, that the *plasmodium malariæ* was dyed by methyl-blue in fresh blood as well as in dry specimens, the authors set themselves at work to ascertain if this substance was of value in the treatment of malaria. Owing to the rarity of intermittent fever at Berlin but two cases are reported. The first patient suffered from the tertian variety and the diagnosis was undoubted, the temperature chart, condition of the spleen, and the presence of the plasmodium being confirmatory. On the evening of the day preceding the expected chill seven and one-half grains of methyl-blue were administered

Two hours after the dose there was slight strangury. During the night there were chilly sensations, a rise of temperature of about one and one-half degrees, with subsidence under gentle perspiration. Twelve hours after the administration of this dose the plasmodium was not dyed, nor indeed was there any change in the blood corpuscles. The same amount of methyl-blue was continued, but divided into five doses administered between noon and midnight. The chill did not again recur, and after the third day it was impossible to find plasmodia in the blood, and the spleen rapidly diminished to its normal size. In the second patient, suffering from the quotidian variety, an equally good result was obtained. This treatment must be continued for eight or ten days after the cessation of the fever. For the prevention of bladder irritation it is well to administer this medicament in powdered nutmeg (preferable to the ethereal oil, which is uncertain). Although the urine is increased in amount and deeply dyed, no albumin has been detected.

In Prof. Brieger's clinic methyl-blue has been used as a remedy for neuralgia (DR. ROBERT IMMERWAHR, *Deutsche medicinische Wochenschrift*, 1891, No. 41, S. 1147.) Here the drug has been used in somewhat smaller doses, to one and one-half grains daily. Eight cases of unilateral sciatica were treated without benefit. Two patients suffering from facial neuralgia, three from angio-spastic migraine were speedily relieved. Several cases of purely nervous headache, of alcoholic depression (*vulgo*, "Katzenjammer"), were cured within an hour. Muscular rheumatism and the neuralgia of herpes zoster were greatly benefited.

IODISM.

MR. F. W. ELSNER, in the *Australian Medical Journal*, 1891, No. 8, p. 377, reports a fatal case of iodism. A woman, forty-nine years old, for four days had taken less than four grains of iodide of potash every six hours. She suffered from a severe coryza; vesicles, blebs, and bullæ appeared on her face, backs of hands and forearms; hemorrhages were found in the scalp. Vomiting of blood, bloody stools, œdema of the feet, hemorrhages confined to face, hands and scalp, were the marked symptoms before her death. "This case illustrates, what has often been urged, viz., that the small doses of iodide produce iodism most rapidly; but most authorities differ as to the dose, etc., which ought to be administered."

THE CUTANEOUS ABSORPTION OF DRUGS INCORPORATED IN FATTY SUBSTANCES.

M. L. GUINARD has been carrying out some interesting experiments to ascertain—1st, if fatty substances, lard, vaselin, or lanolin, are absorbed by the unbroken skin; 2d, if cutaneous absorption is established, whether there exists any difference in the facts as regards absorption; 3d, if fatty absorption is not demonstrated, what excipient would yield more of the active drug incorporated in it. (*Lyon Médical*, 1891, No. 36, p. 6, and No. 37, p. 37.) The results are: Iodide of potash in lard, vaselin or lanolin, well rubbed in, is not absorbed. The same result was obtained with mercury, morphine, strychnine, and atropine. The conclusions are, that with man the absorption of drugs that are not irritant fails to take place through an unbroken skin, and that lanolin is not of more value than vaselin or lard.

OXYGEN INHALATION IN CARDIAC ASTHMA.

In the *Centralblatt für die gesammte Therapie*, 1891, Heft 10, S. 578, DR. M. HEITLER relates his success in the inhalation of oxygen in a case of cardiac asthma dependent upon atheroma of the aorta. Treatment by morphine and ether injections not being satisfactory, with likewise a failure after administration of large quantities of alcohol, it was found that oxygen afforded relief. If there is, however, pulmonary œdema, ether injections are necessary.

DANGERS OF CREASOTE AND IODOFORM INJECTIONS.

In the *Journ. de Méd. de Paris*, 1891, No. 38, p. 429, M. MOREL-LAVALLÉE warns the profession that the subcutaneous administration of creasote and iodoform may be dangerous in tubercular patients. Practising injections of iodoform dissolved in olive oil, to which eucalyptol is added (method of Besnier), the author found in a case of cutaneous tuberculosis that there was a marked amelioration of the symptoms, but as the dose was steadily increased there was a dull-red halo about the site of the disease, and points of suppuration with excavation appeared. According to the observations of Besnier, precisely the same result may occur with creasote. This congestion could readily become dangerous in cases of pulmonary tuberculosis, so that, on account of the popularity of the treatment, this warning is timely.

BITES OF VIPERS.

PROFESSOR KAUFMANN, of the Veterinary School of Alfort (*Lo Sperimentale*, 1891, No. 16, p. 352), has found permanganate of potash and chromic acid to be the best remedies against the bites of vipers. As soon as possible he places a ligature above the lesion, and then with a hypodermatic syringe injects deeply into the point of penetration two or three drops of a 1 per cent. solution. Three or four similar injections are made around this point. If there is swelling, injections are made into it, and the remedy diffused into the tissues by gentle pressure of the hand. Scarification, with compression, is the next procedure, then a protective dressing, dipped in the solution, after the surface has been thoroughly cleansed with it. Small and frequently repeated doses of ammonia and alcohol should be administered to keep up persistent stimulation.

THE TREATMENT OF ERYSIPELAS.

DR. STANISLAUS KLEIN, in the *Berliner klinische Wochenschrift*, 1891, No. 39, S. 958, presents a very valuable contribution from the clinic of Professor Stolnikow, in Warsaw. Quoting Fessler's observation that ammonia ichthyol in bouillon, one to four thousand, prevented the growth of streptococci, and that soda ichthyol in weaker solution hindered the growth of streptococci, and, to a less degree, that of the staplylococcus aureus, he presents his conclusions based upon the experience of two years.

The method which is employed is as follows: The diseased surface is cleansed by washing with soap and water (or with concentrated aqueous solution of carbolic acid, Fessler), and an ointment of equal parts of vaselin and ichthyol, or of equal parts of ichthyol, water, and lanolin, thoroughly rubbed in with the hand over the area of disease, and for a distance of a hand-breadth around it. Over the anointed surface a thin layer of salicylic acid cotton dressing, covered by a thick layer of absorbent cotton, is applied. This is reapplied two or three times daily until the temperature has been normal for three or four days. He concludes that ichthyol is beneficial by its reducing action on the tissues, or by its influence upon the microörganisms, or by both together; that it shortens the duration of the disease one-half; that the duration of treatment is three or four days, and that the course of the disease is much milder.

The following articles are worthy of note:

"Salol," by **M. Ed. Égasse**, in the *Bulletin Gén. de Thérapeutique*, 1891, No. 36, p. 241, is an excellent study of salol, dealing with its chemistry, physiology, and therapeutics. Its value in the diagnosis of diseases of the stomach and pancreas is clearly stated, and its very great usefulness as an intestinal antiseptic duly set forth.

Dott-Domenico Marinucci, in *La Riforma Medica*, 1891, No. 218, p. 803, presents the results of his investigations in "Sterilization of Drugs for Hypodermatic Use." The problems were—1st. Do these solutions contain living germs? 2d. In sterilization is their therapeutic value changed or lost? Conclusions: All solutions studied can develop organisms, although probably not all harmful; in sterilization by heat, strychnine, curarine, bichloride of quinine and borate of eserine are unchanged; with morphine and atropine the dose after sterilization must be increased; sulphate of eserine markedly changed. Since heat changes atropine and sulphate of eserine these drugs are best sterilized by a sublimate solution, 1:10,000, renewed every two weeks.

Dr. R. Dubois presents an interesting theory, to account for the "Action of Anæsthetics" (*Revue Générale des Sciences*, 1891, No. 17, p. 563). Recounting the effects of anæsthetics on vegetation, quoting the experiments of Bernard and Javal and the curious studies of Graham, he believes the mechanism of the action of anæsthetics is really a dehydration of the protoplasm, which does not, however, produce any change of structure recognizable by our ordinary methods of investigation.

Cocaine.

In *La Médecine Moderne*, 1891, No. 37, p. 653, **Prof. G. Sée** furnishes us with a short and practical statement concerning the cocainization of internal organs. As a remedy for pain, it is inferior to injections of morphine or antipyrine, and presents many more inconveniences. In diseases of the stomach it fails, although less dangerous when administered by the mouth than hypodermatically. It is not prophylactic against fatigue. As an antidote to the morphine habit "it is not a triumph but a martyrization of the human race." Acute cocaine poisoning is difficult to foresee, the poisonous dose being so variable and the conditions not easily determined. The vaso-constriction produced by cocaine may be combated by nitrite of amyl, which is often without effect, while chloral is still more uncertain.